

ABSTRACT OF THE DISCLOSURE

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The present invention discloses an integrated circuit receiver available for infrared or ultrasonic transmission by use of digital filtering for demodulation of infrared or ultrasonic carrier signal. The integrated circuit receiver comprises an infrared receiver or ultrasonic transducer to receive the transmitted signal from outside and output the modulated signal. The modulated or carrier signal is fed to an amplifier circuit to be amplified and then outputted to a digital filter to filter out the carrier from the amplified signal, and thus the original or unmodulated signal is recovered. The filtering thereof is done by a digital filter instead of an analog one, therefore there is no need for discrete devices such as capacitors, resistors, diodes and inductor, and it is suitable to be integrated within a chip as an apparatus to receive and detect infrared and ultrasonic signals.